इंटरनेट मानक

Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”
Mazdoor Kisan Shakti Sangathan
“The Right to Information, The Right to Live”

“पुराने को छोड नये के तरफ”
Jawaharlal Nehru
“Step Out From the Old to the New”

IS 2534 (1999): Carbide Tipped Dead Centres [PGD 2: Machine Tool Elements and Holding Devices]

“ज्ञान से एक नये भारत का निर्माण”
Satyanarayan Gangaram Pitroda
“Invent a New India Using Knowledge”

Act Number 22 of 2005
The Indian Parliament
RIGHT TO INFORMATION

Made Available By
Public.Resource.Org

“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”
Bhartṛhari—Nītiśatakam
“Knowledge is such a treasure which cannot be stolen”

BLANK PAGE

BRUTUM FULMEN

IGNORANTIA JURIS NON EXCUSAT

PROTECTED BY COPYRIGHT

IS 2534 : 1999

(Reaffirmed 2004)

भारतीय मानक

कार्बाइड टिप वाले अचल सेन्टर—विशिष्टि

(पहला पुनरीक्षण)

Indian Standard

CARBIDE TIPPED DEAD CENTRES — SPECIFICATION

(First Revision)

ICS 25.080.10

© BIS 1999

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

September 1999

Price Group 1

Machine Tool Elements and Holding Devices Sectional Committee, PE 02

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Machine Tool Elements and Holding Devices Sectional Committee had been approved by the Production Engineering Division Council.

This Indian Standard was first issued in 1963 and the present revision has been taken up to bring it in line with the current manufacturing practices.

Carbide tipped centres are used in applications where the high speed of rotation of the work piece would result in a severe reduction of the service life of an ordinary dead centre. The carbide tip is inserted or brazed into an ordinary carbon steel shank and thus almost the entire abrasion due to the high speed of rotation of the job is taken up by the carbide tip.

Centres covered by this standard are normally used on lathes. They may, however, be used on other machines with similar applications.

This standard is one of a series of Indian Standards relating to centres. Other standard published in the series are as follows:

a) IS 2289 : 1976 Specification for 60° dead centres for lathes
b) IS 3793 : 1966 Live centres

While preparing this standard, assistance has been derived from DIN 806 Lathe Centres issued by the Deutsches Normenausschuss.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed, or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2:1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

CARBIDE TIPPED DEAD CENTRES — SPECIFICATION

(First Revision)

1 SCOPE

This standard covers the requirements for carbide tipped dead centres with Morse taper 0 to 6.

2 REFERENCES

2.1 The following standards contain provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

IS No.	*Title*
1715 : 1986	Dimensions for self holding taper (*second revision*)
12728 : 1989	Carbide tips for dead centre—Specification

3 MATERIAL

3.1 Body

The body of the centres shall be made of a suitable quality steel with a minimum tensile strength of 735 MPa (≈ 75 kgf/mm^2).

3.2 Tip

The tip shall be made of carbide as per IS 12728.

4 HARDNESS

4.1 The hardness on the taper shank of the carbide tipped centre shall not be less than 300 HV (≈ 30 HRC) and more than 510 HV (≈ 50 HRC).

5 DIMENSIONS

5.1 The dimensions of carbide tipped dead centres shall be as given in Table 1.

5.2 A tolerance of ± IT 6 shall be permitted on the taper shanks. For other dimensions of taper shanks, reference should be made to IS 1715.

5.3 The size of angle shall be 60° with a tolerance $^{+10''}_{-0}$

5.4 The grinding of centre point is permitted up to the groove only, in which case, the sunk length of the carbide tip still remains approximately equal to $d_5/2$.

6 DESIGNATION

6.1 Carbide tipped dead centres shall be designated by nominal size (Morse taper no.) and number of this standard.

Example:

The carbide tipped dead centre of nominal size 3 shall be designated as:

Carbide tipped dead centre IS 2534 Morse 3

7 MARKING

7.1 The centres shall be marked of a place indicated in figure with their nominal size in addition to the name of manufacturer or his trade-mark.

7.2 BIS Certification Marking

7.2.1 The carbide tipped dead centres may also be marked with Standard Mark.

7.2.2 The use of the Standard Mark is governed by the provision of *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

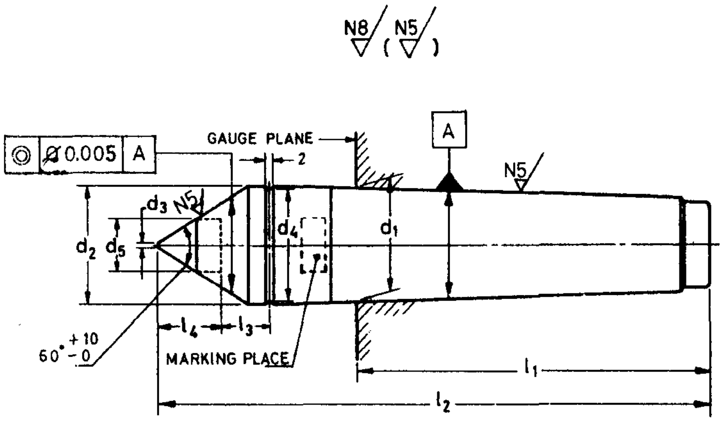
8 PACKING

8.1 The carbide tipped centres shall be wrapped with moistureproof paper and shall be packed in accordance with the best trade practice.

Table 1 Dimensions of Carbide Tipped Dead Centres

(*Clause* 5.1)

All dimensions in millimetres.



Sl No.	Nominal Size (Morse Taper)	Taper	d_1	d_2 h9	d_3	d_4	d_5	l_1, *Max*	l_2	l_3, *Max*	l_4
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
i)	0	1:19.212	9.045	9.2	0.5	8.0	5	50.0	70	1.2	12
ii)	1	1:20.047	12.065	12.2	0.5	10.6	7	53.5	80	2.0	14
iii)	2	1:20.020	17.780	18.0	0.8	16.4	7	64.0	100	7.0	14
iv)	3	1:19.922	23.825	24.1	0.8	22.3	11	81.0	125	7.0	20
v)	4	1:19.254	31.267	31.6	1.0	29.8	14	102.5	160	9.2	22
vi)	5	1:19.002	44.399	44.7	1.6	42.8	18	129.5	200	15.0	30
vii)	6	1:19.180	63.348	63.8	1.6	61.0	18	182.0	270	30.0	30

Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act*, 1986 to promote harmonious development of the activities of stardardization, marking and quality certification of goods and attending to connected matters in the country.

Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Director (Publication), BIS

Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Handbook' and 'Standards: Monthly Additions'.

This Indian Standard has been developed from Doc: No. PE 02 (0180).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones: 323 01 31, 323 3375, 323 94 02

Telegrams: Manaksanstha
(Common to all offices)

Regional Offices:

		Telephone
Central	: Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	323 76 17, 323 38 41
Eastern	: 1/14 C.I.T. Scheme VII M, V.I.P. Road, Kankurgachi CALCUTTA 700054	337 84 99, 337 85 61 337 86 26, 337 91 20
Northern	: SCO 335-336, Sector 34-A, CHANDIGARH 160022	60 38 43 60 20 25
Southern	: C.I.T. Campus, IV Cross Road, CHENNAI 600113	235 02 16, 235 04 42 235 15 19, 235 23 15
Western	: Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400093	832 92 95, 832 78 58 832 78 91, 832 78 92
Branches	: AHMADABAD. BANGALORE. BHOPAL. BHUBANESHWAR. COIMBATORE. FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD. JAIPUR. KANPUR. LUCKNOW. NAGPUR. PATNA. PUNE. RAJKOT. THIRUVANANTHAPURAM.	

Printed at Simco Printing Press, Delhi